Chapter: 19

State(s): Idaho

Recovery Unit Name: Little Lost River

Region 1
U.S. Fish and Wildlife Service
Portland, Oregon

DISCLAIMER

Recovery plans delineate reasonable actions that are believed necessary to recover and/or protect listed species. Recovery plans are prepared by the U.S. Fish and Wildlife Service and, in this case, with the assistance of recovery unit teams, State and Tribal agencies, and others. Objectives will be attained and any necessary funds made available subject to budgetary and other constraints affecting the parties involved, as well as the need to address other priorities. Recovery plans do not necessarily represent the views or the official positions or indicate the approval of any individuals or agencies involved in the plan formulation, other than the U.S. Fish and Wildlife Service. Recovery plans represent the official position of the U.S. Fish and Wildlife Service *only* after they have been signed by the Director or Regional Director as *approved*. Approved recovery plans are subject to modification as dictated by new findings, changes in species status, and the completion of recovery tasks.

Literature Citation: U.S. Fish and Wildlife Service. 2002. Chapter 19, Little Lost River Recovery Unit, Idaho. 122 p. *In*: U.S. Fish and Wildlife Service. Bull Trout (*Salvelinus confluentus*) Draft Recovery Plan. Portland, Oregon.

ACKNOWLEDGMENTS

This chapter was developed with the assistance of the Little Lost River Bull Trout Recovery Unit Team, which includes the following individuals:

Chip Corsi, Idaho Department of Fish and Game
Carol Evans, U.S. Fish and Wildlife Service
Bart Gamett, U.S. Forest Service
Ron Gill, Natural Resources Conservation Service
Rob Gregoire, Idaho Conservation League, Idaho Rivers United
Don Kemner, Idaho Department of Fish and Game
Pat Koelsch, U.S. Bureau of Land Management
Tom Herron, Idaho Department of Environmental Quality
Sam Lohr, U.S. Fish and Wildlife Service

The Little Lost River Key Watershed Bull Trout Problem Assessment was prepared under the Idaho Bull Trout Conservation Plan and contributed to this chapter. The technical group for the Upper Snake River Advisory Group, Little Lost River Interagency Technical Advisory Team, prepared the problem assessment and included the following individuals:

Don Essig, Idaho Department of Environmental Quality
Jill Foster, U.S. Forest Service
Mike Foster, U.S. Forest Service
Bart Gamett, U.S. Forest Service
Cindy Graffe, Idaho Department of Environmental Quality
Thomas Herron, Idaho Division of Environmental Quality
Bob Martin, Idaho Department of Fish And Game
Robert Steed, Idaho Department of Environmental Quality
Don Zaroban, Idaho Department of Environmental Quality

EXECUTIVE SUMMARY

CURRENT SPECIES STATUS

The U.S. Fish and Wildlife Service issued a final rule listing the Columbia River population of bull trout (*Salvelinus confluentus*) as a threatened species under the Endangered Species Act on June 10, 1998 (63 FR 31647). The Little Lost River Recovery Unit forms part of the range of the Columbia River distinct population segment. The Little Lost River Recovery Unit consists of a single core area, including the mainstem river and tributaries in which bull trout have been observed. The core area includes 10 local populations.

HABITAT REQUIREMENTS AND LIMITING FACTORS

A detailed discussion of bull trout biology and habitat requirements is provided in Chapter 1 of this recovery plan. The limiting factors discussed here are specific to the Little Lost Recovery Unit chapter. Within the Little Lost River Recovery Unit, elevated stream temperatures are probably the most limiting factor for bull trout (LLRITAT 1998). Land management activities— such as water diversions and improper grazing practices—that degrade aquatic and riparian habitats by altering stream flows and riparian vegetation may elicit or exacerbate unsuitable water temperature regimes for bull trout. Other factors that negatively affect bull trout in the Little Lost River Recovery Unit include habitat fragmentation and isolation due to fish passage barriers, interactions with nonnative brook trout, and possibly harvest of fish due to poaching or to misidentification by anglers.

RECOVERY GOALS AND OBJECTIVES

The goal of the bull trout recovery plan is to **ensure the long-term persistence of self-sustaining, complex, interacting groups of bull trout distributed throughout the species' native range so that the species can be delisted.** To achieve this goal, the following objectives have been identified for bull trout in the Little Lost River Recovery Unit:

- Maintain current distribution of bull trout and restore distribution in previously occupied areas within the Little Lost River Recovery Unit.

- Maintain stable or increasing trends in abundance of bull trout in the Little Lost River Recovery Unit.

- Restore and maintain suitable habitat conditions for all bull trout life history stages and strategies.

- Conserve genetic diversity and provide opportunity for genetic exchange.

RECOVERY CRITERIA

Recovery criteria for the Little Lost River Recovery Unit are established to assess whether actions are resulting in the recovery of bull trout in the basin. The criteria developed for bull trout recovery address quantitative measurements of bull trout distribution and population characteristics on a recovery unit basis.

The recovery unit team also developed an approach to generate potential recovery tasks. The approach included describing local populations and areas important for bull trout; determining whether local populations and areas were attaining their recovery potential; identifying protective actions for some areas to ensure that they continued toward recovery and identifying reasons why other areas were not attaining their potential; and developing actions to address the factors inhibiting recovery. The approach generated information that contributed to developing recovery criteria for the Little Lost River Recovery Unit.

1. **Distribution criteria will be met when the current distribution of bull trout in the 10 local populations that have been identified is maintained.** Existing local populations include Badger Creek, Williams Creek, Wet Creek (including Big Creek), Warm Creek, Squaw Creek, Mill Creek, Iron Creek (including Hawley and Jackson Creeks), Timber Creek (including Camp, Redrock, and Slide Creeks), Smithie Fork Creek, and the upper Little Lost River (Iron Creek confluence to headwaters,

excluding the Timber Creek and Smithie Fork Creek watersheds). The recovered distribution of bull trout in the Wet Creek local population requires fish in Big Creek, a tributary to Wet Creek.

2. **Abundance criteria will be met when the estimated abundance of adult bull trout is at least 6,750 individuals in the Little Lost River Recovery Unit.** Using professional judgment, the Little Lost River Recovery Unit Team estimated abundance of adult bull trout for the recovery unit by using surveys of fish densities and considering current habitat conditions and potential conditions after threats have been addressed. Because most bull trout in the recovery unit are resident fish, fish that are 180 millimeters (7.1 inches) or longer were considered adults. Minimum abundance of adult bull trout estimated for local populations to meet abundance criteria are presented in Appendix C.

3. **Trend criteria will be met when adult bull trout exhibit stable or increasing trends in abundance, over at least two generations, in the Little Lost River Recovery Unit.**

4. **Connectivity criteria will be met when specific barriers to bull trout migration in the Little Lost River Recovery Unit have been addressed.** Tasks to identify and assess barriers to bull trout passage are recommended in this recovery plan. Sites and activities necessary to fulfill connectivity criteria include the following: evaluating passage options at the diversion structures in the lower reaches of Badger and Williams Creeks (tasks 1.2.1, 1.2.2, and 1.2.3), at the falls created by debris and perhaps a head-cut in Bunting Creek (task 1.2.13), and at the flood-control structure near Howe (task 1.2.11); implementing appropriate actions based on the results of the options evaluated in the tasks (tasks appear in the Recovery Measures Narrative and the Implementation Schedule); and conducting coordinated review with the U.S. Fish and Wildlife Service during implementation of the tasks.

ACTIONS NEEDED

Recovery for bull trout in the Little Lost River Recovery Unit will entail reducing threats to the long-term persistence of populations and their habitats, ensuring the security of multiple interacting groups of bull trout, and providing habitat and access to conditions that allow for the expression of various life history forms. The seven categories of actions needed are discussed in Chapter 1; tasks specific to this recovery unit are provided in this chapter.

ESTIMATED COST OF RECOVERY

The estimated cost of bull trout recovery in the Little Lost River Recovery Unit is $1 million spread over a 25-year period. This estimate does not include costs associated with some activities (*e.g.*, capital improvements for fish passage and protection) for which the feasibility and design options are the outcomes of recommended tasks in this chapter, nor does this estimate include costs of tasks that are normal agency responsibilities under existing authorities. Total costs include estimates of expenditures for local, Tribal, State, and Federal govenments and private business and individuals. These costs are attributed to bull trout conservation, but other aquatic species will also benefit.

ESTIMATED DATE OF RECOVERY

Time required to achieve recovery depends on bull trout status, factors affecting bull trout, implementation and effectiveness of recovery tasks, and responses to recovery tasks. A tremendous amount of work will be required to restore impaired habitat, reconnect habitat, and eliminate threats from nonnative species. If actions specifically identified in this chapter are implemented, as well as the actions that are generated from conducting the specific evaluations and assessments described in this chapter, the Little Lost River Recovery Unit Team anticipates that recovery could be achieved in two to five bull trout generations (10 to 25 years).